

April 27, 1994

15,816.001

Mr. Joe Miles Toppenish Department of Public Works 21 West First Avenue Toppenish, Washington 98948

Dear Mr. Miles:

Summary of Field Activities Petroleum Hydrocarbon Compounds Site Assessment 21 West First Avenue Toppenish, Washington

### **GENERAL**

This letter report summarizes activities performed by AGI Technologies (formerly Applied Geotechnology Inc.) on April 12 and 13, 1994 at the above referenced site. AGI was authorized by the City of Toppenish to provide these services after Pacific Environmental Services Company (PESCO) encountered soil and groundwater contamination during underground storage tank (UST) removal.

### PURPOSE AND SCOPE OF SERVICES

The purpose of our services was to evaluate the immediate risk to human health and the environment due to petroleum hydrocarbon compounds in soil and groundwater following a release from a UST system at the site. Our scope of services consisted of the following:

- Observing the excavation of four test pits to determine the extent of contamination.
- Field screening soil during test pit excavation using an organic vapor meter equipped with a photoionization detector (OVM-PID).
- Collecting four soil samples and four water samples and analyzing them for total petroleum hydrocarbons (TPH) quantified as diesel by Washington State Method WTPH-D.



(206) 453-8383

Mr. Joe Miles Toppenish Department of Public Works April 27, 1994 Page 2



### TEST PIT EXCAVATION

Four test pits were excavated surrounding the area of concern. Each test pit was excavated to a depth of approximately 13 feet below ground surface (bgs). Groundwater was encountered at approximately 12 feet bgs. The excavated soil was field screened using an OVM-PID. Field screening did not indicate the presence of hydrocarbons.

### ANALYTICAL RESULTS

A soil and water sample was collected from each of the four test pits and analyzed for TPH quantified as diesel. All soil and water samples results were below detection limits for diesel fuel. A copy of the lab report is attached.

Results for one test pit indicated a low level of hydrocarbons in the waste oil range. This was verbally reported by the lab to be approximately 200 parts per million.

Results of test pit sampling indicate that the extent of contamination identified by PESCO during tank removal is limited and can be addressed through overexcavation and limited groundwater pumping and disposal. Submitted to you in a separate letter is AGI's proposed remedial activities for the site.

### RECOMMENDATIONS

Based on the results of the test pit investigation, we recommend that the residual soil contamination identified by PESCO during the tank removal be excavated and that several volumes of water be removed using a sump that has already been installed. Soil samples should be taken to confirm all soil contamination has been removed and groundwater samples should be taken to monitor residual levels of diesel that may remain.

#### LIMITATIONS

This report has been prepared for exclusive use by Toppenish Department of Public Works and its other consultants for this project only. The analysis, conclusions, and recommendations in this report are based on conditions encountered at the time of our field investigation, design information you provided, and our experience and engineering judgement. AGI cannot be responsible for the interpretation by others of the data contained herein.

Mr. Joe Miles Toppenish Department of Public Works April 27, 1994 Page 3



Our work has been performed in a manner consistent with that level of care ordinarily exercised by members of the profession currently practicing under similar conditions in the area. No other warranty, express or implied, is made.

Sincerely,

**AGI Technologies** 

Ross R. Stainsby Geologist

Gary Laakso

Remediation Services Manager

RRS/GLL/kjw

attachments



April 18,1994 Lab Traveler #:04-046

Ross Stainsby Applied Geotechnology, Inc. 300 120th Avenue NE Bellevue, WA 98009

### Dear Ross:

Enclosed are the results of the analyses of samples submitted on April 13, 1994 from Project 15816.001.

We appreciate this opportunity to be of service to you on this project. If you have any questions regarding this report, please feel free to call me.

Sincerely,

Andy Bay

**Project Chemist** 

**Enclosures** 

Lab Traveler: 04-046 Project: 15816.001

### WTPH-D

Date Extracted: 4-14-94 Date Analyzed: 4-14-94

Matrix: Soil

Units: mg/Kg (ppm)

Client ID	Dilution TPH Factor		o-terphenyl Surrogate Recovery
TP1-S	1	<25	90%
TP2-S	1	<25	87%
TP3-S	1	<25	82%
TP4-S	1	<25D	83%

D-Hydrocarbons in the heavy oil region(>C24) present in the sample.

Lab Traveler: 04-046 Project: 15816.001

# WTPH-D QUALITY ASSURANCE

Date Extracted:4-14-94 Date Analyzed:4-14-94

Matrix: Soil

Units: mg/Kg (ppm)

	Dilution Factor	TPH	o-terphenyl Surrogate Recovery
Method Blank	, 1	<25	104%
Sample: 04-041-15	1	198	78%
Duplicate	1	240	84%
RPD		19%	
	Dilution Factor	ТРН	o-terphenyl Surrogate Recovery
Spiked @ 100 ppm Spike Blank Percent Recovery	1	105 105%	108%
Spike Blank Duplicate Percent Recovery	1	103 103%	111%
RPD		1.9%	

Date of Report: April 18,1994

Samples Submitted: April 13, 1994

Lab Traveler: 04-046 Project: 15816.001

### WTPH-D

Date Extracted: 4-14-94 Date Analyzed: 4-14-94

Matrix: Water Units: mg/L (ppm)

Client ID	Dilution Factor	TPH	o-terphenyl Surrogate Recovery
TP1-W	.02	<.50	95%
TP2-W	.02	<.50	109%
TP3-W	.02	<.50	109%
TP4-W	.02	<.50	106%

Lab Traveler: 04-046 Project: 15816.001

## WTPH-D QUALITY ASSURANCE

Date Extracted: 4-14-94 Date Analyzed: 4-14-94

Matrix: Water Units: mg/L (ppm)

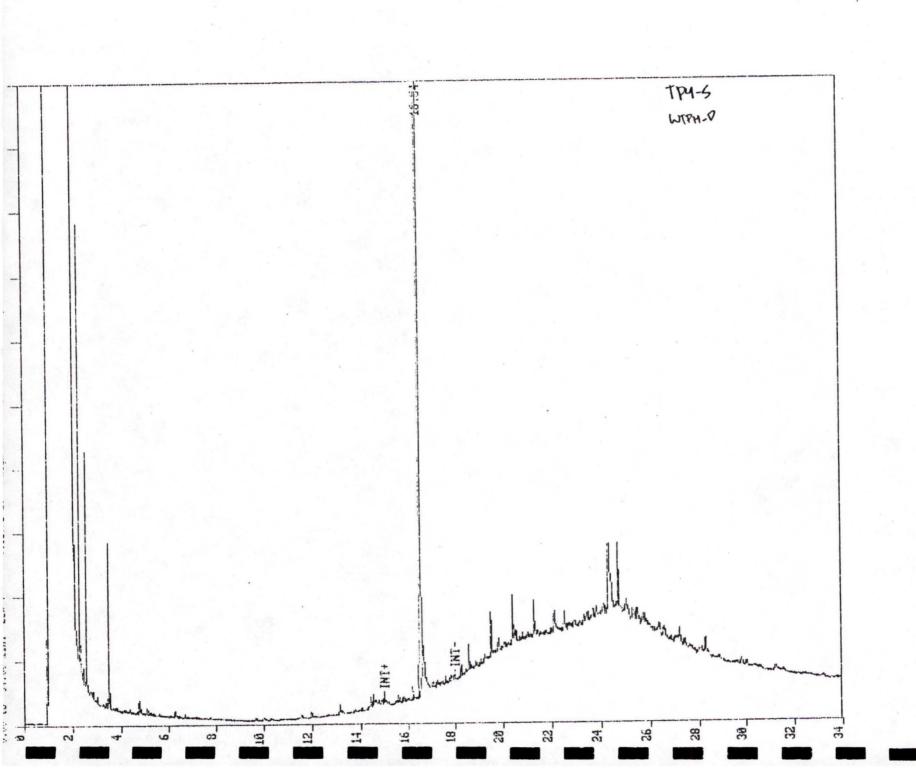
	Dilution Factor	TPH	o-terphenyl Surrogate Recovery
Method Blank	.02	<.50	98%
Sample: 04-040-2	.02	.818	90%
Duplicate	.02	.617	102%
RPD		28%	

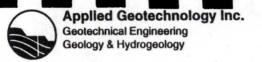
Lab Traveler: 04-046 Project: 15816.001

Date Analyzed:4-14-94

# **RESULTS OF DRY WEIGHT**

Client ID		% Moisture
TP1-S		9%
TP2-S		8%
TP3-S		9%
TP4-S		10%







CHAIN-OF-WSTODY

Laboratory Number: PROJECT INFORMATION Project Manager: Ross Stainsby **ANALYSIS REQUEST** Project Name: Toppenish / it stap LEACHING PETROLEUM HYDROCARBONS ORGANIC COMPOUNDS PESTS/PCB's OTHER **TESTS** 8080M PCBs only 8080 OC Pest/PCBs DWS - Volatiles and S 8310 HPLC PAHs 8270 GCMS Semivol. 8240 GCMS Volatiles NUMBER OF CONTAINERS Site Location: 102/2015h Sampled By: IX "DISPOSAL INFORMATION XLab Disposal (return if not indicated) Disposal Method: Semivol Disposed by: \_\_\_\_\_ Disposal Date:\_ QC INFORMATION (check one) □SW-846 □CLP □Screening □XAGI Std. □Special TIME | MATRIX | LAB ID SAMPLE ID DATE 4-13.94 OBIII Water TPI-W C74/P 5011 TP1-5 TPZ.W Moster 500 Tre.5 (850) Wester TP3. W 1011 100E SA T175-5 TP4-W Water 1135 TP4-5 **RELINQUISHED BY: 3.** RELINQUISHED BY: 2. **RELINQUISHED BY: 1.** SAMPLE RECEIPT LAB INFORMATION Signature: Signature: **Total Number of Containers:** Lab Name: On Site 11.70 Chain of Custody Seals: Y/N/NA Lab Address: Printed Name: **Printed Name:** Printed Name: Intact?: Y/N/NA Company: Company: Received in Good Condition/Cold: Via: CUVITER ALT RECEIVED BY: 3. RECEIVED BY: 1. RECEIVED BY: □24 hr. □ 1 wk. □ 72 hr. □ 1 wk. Turn Around Time: Standard Signature: Signature: PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA Printed Name: Printed Name: Special Instructions: Andrew A Company: Company:

AGI OFFICES: Bellevue: (206) 453-8383

Portland: (503) 222-2820

Tacoma: (206) 383-4380

Pleasanton: (415) 460-5495

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to AGI Project Files; Gold to AGI Disposal Files